Deber 7Q
Estatica

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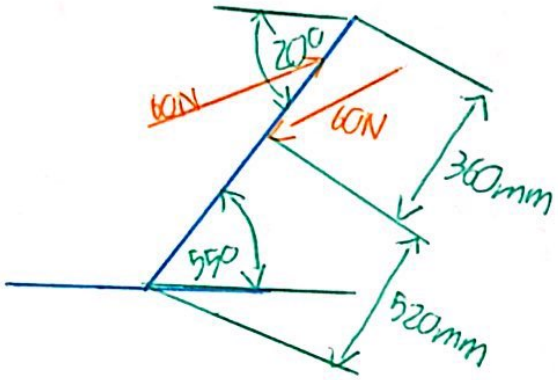
7O)



$M = -(F \times d)K$

$M = -40(0,270)\text{sen } 35 \Rightarrow -6,2K$

$Cx = 40 \cos 20° \Rightarrow 37,58\,N$

$Cy = 40 \text{sen } 20° \Rightarrow 13,68N$

$d_1 = 270 \cos 55 \Rightarrow 0,154\,m$

$d_2 = 270 \text{sen } 55 \Rightarrow 0,221\,m$

$M = -d_2 \times Cx + d_1 \times Cy$

$M = -0,221(37,58) + (0,154)(13,68)$

$M = -6,3K$

72) a) $M = d_{AD} F_{AB}$

$18 = 0,24 F_{AB}$

$F_{AB} = 75N$

b) $M = d_{BC} F_{BC}$

$d_{BC} = \sqrt{0,08^2 + 0,24^2}$

$d_{BC} = 0,25m$

$18 = 0,25 F_{BC}$

$F_{BC} = 72N$

c) $M = d_{AC} F$

$d_{AC} = \sqrt{0,32^2 + 0,24^2}$

$d_{AC} = 0,35\,m$

$M = d_{AC} F_{AC}$

$F_{AC} = 51,42$

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76) $M = M_1 + M_2$

$M = \langle 1,92, 9 \rangle Nm$

$|M| = \sqrt{81 + 3,68} \Rightarrow 9,25$

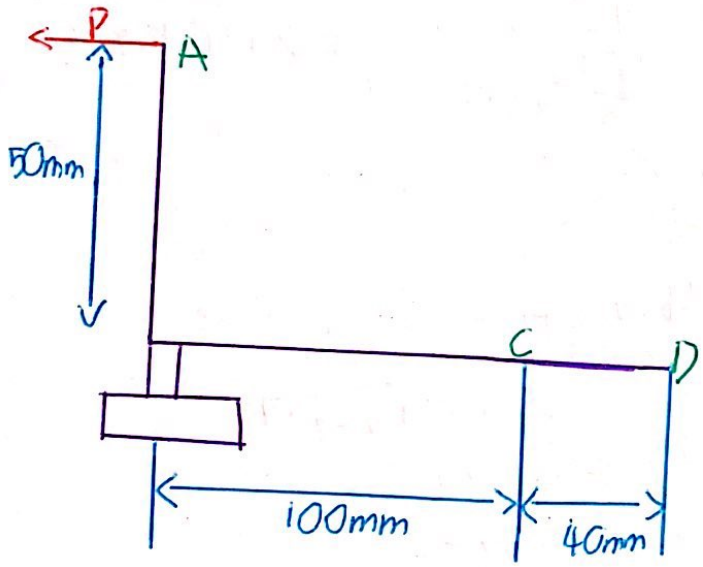
$\lambda = \langle 0,20 / 0,96 \rangle$

$\theta_x = \cos^{-1} 0,20 \Rightarrow 78,46^\circ$

$\theta_y = \cos^{-1} 0,96 \Rightarrow 16,26^\circ$

$\theta_z = \cos^{-1} 0 \Rightarrow 90^\circ$

83)



a) $M = (0,05)(80) \Rightarrow 4Nm$

$M = dc\ F_B$

$E_D = 100N$

$E_C = 100N$

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84) $\Sigma F_x = 0$

$F_A \operatorname{sen}\theta + F_B \operatorname{sen}\theta = 1040 \operatorname{sen} 30°$

$\Sigma F_y = 0$

$-F_A \cos\theta - F_B \cos\theta = 1040 \cos 30$

$-\tan\theta = \dfrac{(F_A + F_B)\operatorname{sen}\theta}{-F_A - F_B \cos\theta}$

$F_A = 389\,N$

$F_C = 671\,N$

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